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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,892	03/27/2002	Kyosti Ranto	442-010765-US(PAR)	7832
2512	7590	02/28/2007	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			PRICE, NATHAN E	
			ART UNIT	PAPER NUMBER
			2194	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/019,892	<b>Applicant(s)</b> RANTO ET AL.	
	<b>Examiner</b> Nathan Price	<b>Art Unit</b> 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006 and 06 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,5-12 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-12 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

1. This Office Action is in response to communications received 11 September 2006 and 6 December 2006. Claims 1, 5 – 12 and 15 – 20 are pending. Previous objections and rejections not included in this Office Action have been withdrawn.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 5 – 12 and 15 – 20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 7, 8, 11, 15, 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forslow (US 6,608,832 B2) in view of Szabo et al. (US 6,567,425 B1; hereinafter Szabo) and Coulouris (Coulouris, George, Jean Dollimore and Tim Kindberg. "Distributed Systems Concepts and Design." Second Edition, Addison-Wesley; 1994; pages 165-178.).

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4. As to claim 1, Forslow teaches a method of managing bearer adapters, each bearer adapter being used at a server for communication with a terminal over a particular wireless network (col. 5 lines 52 – 65; col. 9 lines 38 – 53), the method comprising:

dynamically adding and deleting a bearer to and from the server while the server is able to communicate with already existing bearer (col. 12 line 56 – col. 13 line 9; col. 17 lines 45 – 61); and

wherein adding and deleting the bearer to and from the server is controlled by a bearer gate that is configured to operate between the bearer and the protocol stack (Figs. 5, 7; col. 5 lines 52 – 65; col. 10 lines 54 – 65; col. 12 lines 11 – 34).

5. Forslow fails to specifically disclose the addition of bearer adapters or threads. However, Szabo discloses the use of multiple bearer services using bearer adapters (col. 2 lines 42 – 51; col. 5 lines 20 – 33); and creating the adapter at a protocol stack in the server (col. 2 lines 34 – 51; col. 5 lines 20 – 33; the BAP is in the AAL2). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine these references because Forslow discloses the use of multiple bearer services (col. 12 line 56 – col. 13 line 9; col. 17 lines 45 – 61) and Szabo discloses multiple bearer adapters for providing compatibility with multiple bearer services (col. 5 lines 20 – 33).

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6. Forslow and Szabo do not specifically state that the adapters are created on threads. However, threads are well known and disclosed by Coulouris (page 165 ¶ 3). It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to create a particular thread to which the added bearer adapter is assigned to maximize concurrent execution as described in Coulouris (page 165 ¶ 3).

7. As to claim 5, Forslow teaches or at least implies:

transferring data between a protocol stack and the bearer adapter via a bearer gate (Figs. 5, 7; col. 5 lines 52 – 65; col. 10 lines 54 – 65; col. 12 lines 11 – 34); and

upon creating the bearer adapter, storing identification information about the bearer adapter in the bearer gate (col. 18 lines 6 – 38).

8. Forslow fails to specifically disclose that upon deleting the bearer adapter, the particular bearer adapter identification information is removed from the bearer gate. However, Forslow discloses that bearers may be released (col. 17 lines 45 – 61), which at least implies that the identification information does not remain in the bearer gate in such a way as to incorrectly indicate that the bearer is still available. One of ordinary skill in the art at the time of Applicant's invention would have realized that it is important to be able to remove identification information of bearers, because if the bearer no longer exists as a result of being released, it could be problematic to maintain the identification information as if the bearer remained unchanged.

9. As to claim 7, Forslow teaches controlling the operation of bearer adapters with a user interface (col. 17 lines 5 – 13).

10. As to claim 8, Forslow modified by Szabo teaches wherein the controlling comprises adding, removing, starting, stopping, configuring and monitoring the operation of bearer adapters (Forslow: col. 12 lines 35 – 55; col. 17 lines 5 – 10; Szabo: col. 6 lines 6 – 7).

11. As to claim 9, Forslow fails to specifically teach a graphical windows based user interface. However, Forslow teaches controlling the operation of bearer adapters with a user interface (col. 17 lines 5 – 10) and graphical windows based user interfaces are a well-known type of user interface.

12. As to claim 11, see the rejection of claims 1 and 5.

13. As to claim 12, see the rejection of claims 1 and 7.

14. As to claim 15, see the rejection of claim 1.

15. As to claim 16, see the rejection of claims 1 and 5.

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16. As to claim 17, see the rejection of claims 7 and 9.

17. As to claim 18, Forslow teaches a gateway server serving a plurality of mobile terminals (col. 6 lines 60 – 64).

18. As to claim 20, see the rejection of claims 1 and 5.

19. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forslow in view of Szabo and Coulouris as applied to claim 5 above, and further in view of Anderson (Anderson et al. "Scheduler Activations: Effective Kernel Support for the User-Level Management of Parallelism." ACM Transactions on Computer Systems, Vol. 10, No. 1, February 1992, Pages 53 – 79.).

20. As to claim 6, Forslow fails to specifically disclose upon deletion of the identification information about the bearer adapter, keeping the particular thread assigned to the bearer adapter until the next time the operation of the server is stopped. However, Anderson discloses keeping and reusing threads in order to reduce overhead (page 69 ¶ 4). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to apply the disclosure of Anderson to that of Forslow because establishing and releasing bearer services requires the allocation and release of resources, which creates overhead. One of ordinary skill in the art would realize that the reuse of allocated resources for scheduler activations and kernel threads is similar to

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reuse of bearer service threads and applying this reference would reduce overhead for this application of threads.

21. Claims 10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forslow in view of Szabo and Coulouris as applied to claims 1 and 18 above, and further in view of Buchholz et al. (US Pat. 6,088,340; hereinafter Buchholz).

22. As to claims 10 and 19, Forslow teaches the terminals comprise mobile terminals and cellular telephones and a gateway (col. 1 lines 25 – 40; col. 8 lines 51 – 65; col. 6 lines 60 – 64), but fails to specifically teach WAP. However, Buchholz discloses WAP (col. 1 lines 39 – 48). It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because Buchholz discloses that WAP is an existing technology for wireless communication.

### ***Conclusion***

23. The prior art made of record on the P.T.O. 892 that has not been relied upon is considered pertinent to applicant's disclosure. Careful consideration of the cited art is required prior to responding to this Office Action, see 37 C.F.R. 1.111(c).

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP



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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Price whose telephone number is (571) 272-4196. The examiner can normally be reached on 6:30am - 3:00pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER